

NORTH DAKOTA ENTERPRISE ARCHITECTURE

STANDARD AST001-04.4

EFFECTIVE: November 3, 2004

REVISION #: 4

REVISED: October 17, 2006

APPLICATION DEVELOPMENT TOOLS/LANGUAGES

Purpose

To set direction for application development, share knowledge, coordinate training, promote user groups and reduce cost of training and purchase of development tools/languages.

Standard

All new applications shall be developed using tools/languages specified in the Application Development Tools/Languages List. New tools/languages will be presented to the domain team for review and evaluation.

Policy

Tools/languages will be consistent throughout the enterprise.

Applicability

This standard applies to all executive branch state agencies excluding the University Systems Office and other higher education institutions, i.e. campuses and agricultural and research centers.

Definition

Application – A software solution that accomplishes one or more business processes.

New Applications – New application software or replacement of existing application software, including all custom developed software, vendor software, and off-the-shelf software. Maintenance to an existing application is not considered new application development.

Language – A formal language in which computer programs are written.

Tool – A software product used in combination with languages to develop application software. Common desktop software such as word processors or spreadsheets are not considered tools.

Guidance

See Enterprise Architecture EDMS standards for EDMS tools.

Non-Compliance

Non-compliance with this standard shall be reported to the Office of the State Auditor.

Version Control

This version supersedes standard AST001-04.3

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APPLICATION DEVELOPMENT TOOLS/LANGUAGES LIST

* Indicates the direction the enterprise is heading or is a preferred tool/language

Direction *	Tool/Language	Additional Information
Design Tools - Database and UML Modeling		
	IBM Rational Software/Data Architect	
	Oracle Designer	
	Sybase PowerDesigner	
	Compuware SteelTrace	Requirements capture tool
Development Tools/Platforms		
*	Allround Automations PL/SQL Developer	Developing Oracle RDBMS objects
*	Altova XMLSPY	XML
*	ESRI	GIS
*	IBM RAD/Eclipse	Java
*	Java	J2EE, J2SE, J2ME
*	Macromedia Dreamweaver/Homesite	Web site/page design and development
*	Microsoft.NET	Microsoft Visual Studio .NET, .NET Framework, ASP.NET
	Microsoft Access	End user database tool
	Oracle JDeveloper	Java
	Sun Microsystems SeeBeyond	Message translation and queuing and HIPAA Translator
	Sybase PowerBuilder	Client/Server
	Compuware OptimalJ	J2EE (Model Driven Development)

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APPLICATION DEVELOPMENT TOOLS/LANGUAGES LIST

Documentation Tracking Tools		
* (strike)	Macromedia RoboHelp	Tool used to create help systems for desktop and web-based applications
*	Microsoft Visio	Tool used to create drawings, flowcharts and diagrams
	Patton & Patton Flow Charting	Tool used to draw and design flowchart diagrams
Report Writers		
*	Business Objects Crystal Reports	A Windows based report writer from BusinessObjects
	Jinfonet JReport	Reporting tool from Jinfonet that is portable across any Java platform
	Oracle Discoverer	An ad-hoc query, reporting analysis and web-publishing tool for end users
	Oracle Reports	Client report writer
	Microsoft Reporting Services	SQL reporting services
Configuration Management Tools		
	Computer Associates Librarian	Mainframe
	IBM Rational ClearCase	
	Microsoft Visual Source Safe	
	Oracle SCM	
	CVS	
Testing Tools		
*	Borland Software (formerly Segue Software) SilkTest, TestManager, IssueManager	Functional testing tool, test manager/scheduler, and defect tracking
*	Mercury Interactive Load Runner	Performance testing tool for web applications (Service provided by ITD)

Changed Text